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Introduction: Infrastructure as an Asynchronic Timescape

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Infrastructure engages time, and vice versa, in countless ways. Thinking infrastructures as "complicated pleated arrangements," extensive, even if inconsistent, "fractal" orders (Harvey, Jensen and Morita 2017: 13) and as an aspirationally planetary system, draws attention to temporalities related to the systemic quality of infrastructure. This systemic quality underpins the role that infrastructure has been given in the linear temporalities of the modernization theory, progressivist historiography and various colonial projects (Bowker 2015). A different perspective, in which a road or a dam is not a module or "eye" in a chain of infrastructural links, but a specific place – a lifeworld – redirects the spotlight to a plethora of other temporalities which are specific to the environment and the social-political terrain in which any road, dam or airport is embedded. In this perspective, each infrastructure is a unique temporal event (Massey 2005: 138-42), that is, the ways in which an infrastructure "is" is contingent on the place and time in which it is embedded. Hence, as every human is part of humanity, every road, for example, is part of the planetary infrastructure order. However, the ways in which they are elements within these larger systems are contingent on a whole range of locally specific conditions. In this collection of short interventions, our initial aim is to focus on how each tunnel, border fence and other

Building the past for the future tourists: "Old town" in Kashgar under construction, 2011. Photo: Agnieszka Joniak-Lüthi.

more or less temporary items of infrastructure "travel" (Clifford 1992) across such spatial and temporal scales. At the same time, the authors pay particular attention to how infrastructure and time become entangled in locally specific ways at their field sites – in the Canadian Arctic, in Tajikistan, in India, at the eastern borders of the European Union, in Switzerland and in England. As a collective effort, these texts intend, first, to show a few examples of the variety of temporalities that make and unmake infrastructure. Second, the aim is to advance an argument that, perhaps counterintuitively, infrastructure is inherently lively and fragile as it is always a complex web of multiple temporalities. Third, focusing explicitly on those temporalities should provide food for thought in terms of rethinking infrastructure as an asynchronic "timescape" (Adam 1998).

Analytic philosophy differentiates between "A-series time," that is, time as perceived by humans through subjective, embedded relationships, and "B-series time," which relates to time as an incessant physical multiplication (Hodges 2008). In contrast to natural scientists, social sciences and humanities scholars have focused on the former, discussing the sociality of time, its representations, politics, geometry, economy and the ways it figures in epistemology (Evans-Pritchard 1939; Fabian 1983; Gell 1992; Munn 1992; Bear 2016). When thinking infrastructure through time, I take inspiration from Tim Ingold's (1993) elaboration on the temporality of place. A place is, in Ingold's understanding, the accumulated experience of an ongoing engagement between human and nonhuman forces. Paraphrasing Ingold's proposition, I suggest thinking infrastructures such as roads, tunnels or kitchens as *places* in which specific social relations intersect and accumulate over time, forming unique social-material-political

Returning from the pasture in the evening: Animal commuting rhythms on state-built infrastructure, northwest China, 2011.
Photo: Agnieszka Joniak-Lüthi.

Colliding temporalities of moving sand and human travel along the road through the Taklamakan Desert, northwest China, 2016.
Photo: Agnieszka Joniak-Lüthi.

terrain (Massey 1994). In this collection, the authors examine specifically the multiple temporalities that reveal themselves upon infrastructural encounters – temporalities that are multi-vectoral, often significantly out of sync and which multiply at different speeds. It is thinking through infrastructures as specific bundles of relationships that accumulate over time and thus make each infrastructure embody a different thing at any given moment that facilitates their understanding as inherently lively.

Numerous engineering studies have considered the difficulty of matching the time horizons of various materials used for construction, such as asphalt and concrete (Chiu, Hsu and Yang 2008), while social scientists have elaborated on the social-political consequences of neglecting these materials' lifespans or on the protracted environmental effects of infrastructure (Flower 2004; Carse 2017). The argument here builds on those studies and goes a step further, proposing to think infrastructure as a "timescape" (Adam 1998). Barbara Adam's notion of the timescape, which stresses the asynchronicity between the temporalities of the environment and, for instance, industrial food production, is a helpful heuristic tool for incorporating multiple temporalities, both human and nonhuman, in one analytic frame to highlight their mutual entanglements. The notion of timescape allows us to reconsider infrastructure through the time horizons, lifespans, rhythms and cycles of the environment, materials, capital, humans, discourses, technology, the state and other agentive forces that make and unmake it. For example, asphalt used in road construction has its own design lifespan, which is destabilized through the temporal cycles of ecosystems and climate. The capital necessary for construction and maintenance is entangled in the temporal cycles of its turnover and, in countries such as China, where I conduct my research, depends on the time horizons of bureaucratic appointments of party and government cadres who determine where and for how long the capital flows. This capital is further dependent on the strategic goals of the state, which have their own dynamic temporalities. Construction companies also run on their own rhythms of profit, which are additionally bound to investment priorities set by particular national agendas. Yet another temporality that affects infrastructure is geological and climatic

deep time (Irvine 2014), which becomes visible when long-term time horizons are considered. For example, the extraction of crude oil, which has fuelled a specific kind of infrastructure construction worldwide (Appel 2018) indexes extensive planetary temporalities that contrast sharply with the current pace of resource consumption. Other crucial components of most infrastructural timescapes are the temporal cycles of humans living along roads, railway tracks and pipelines, the complex temporality of their memories, the rhythms of the businesses that live off infrastructure (Klaeger 2012), and the specific temporalities of repair and maintenance work.

Thinking infrastructure and time together makes clear once again that construction alone does not assure connectivity and "flows." Understanding that every infrastructure is an asynchronic timescape indexes the inherent fragility of a connectivity that can only emerge when these multiple temporal relationships are, more or less successfully, synchronized in the work of construction, maintenance and mundane utilization. The omnipresent processes of ruination and decay reveal the challenge of this task – a challenge that results from the fact that each infrastructure is not only itself a bundle of relationships but also connects to a plethora of other relationships on which it depends and which it enables, transforms or severs (Campbell 2012; Joniak-Lüthi, forthcoming).

In *The Infrastructure Toolbox*, Geoffrey Bowker (2015) posits that infrastructures do not have "plotlines," the "temporality that we associate with much historical storytelling." This leads him to conclude that "infrastructures do not inhabit human lifetimes." The contributions to this collection appear to suggest something else. They rather

Arrested "flows:" Waiting for a bridge to be repaired, Xinjiang 2011. Photo: Agnieszka Joniak-Lüthi.

show the ways in which human and nonhuman temporalities become entangled, discussing how the asynchronicity of the relations that make infrastructures affects the lifeworlds of people who live with and along them, and also how the sediments of earlier relations impact the social life of infrastructures in the present and in the futures that they are imagined to embody. For example, Ignaz Strebel, Moritz F. Fürst and Alain Bovet demonstrate how time is perceived by maintenance workers in Switzerland as highly intersubjective, with a functioning water infrastructure being "a collective endeavour over time" between the owners of buildings, tenants, maintenance workers and other actors. Next, Francisco Martínez and Tarmo Pikner's contribution takes us to the very different ethnographic setting of three borders: between Georgia and Abkhazia, Georgia and South Ossetia, and Estonia and Russia – to observe how geopolitics translates onto highly unstable infrastructural forms that affect the cycles of agricultural work, fishing, commuting and settlement. Carolin Maertens, in the following contribution, leads us to the southeastern border of the former Soviet Union, to analyse the visit of Tajikistan's President Emomali Rahmon to the Wakhan Valley as a "temporal event." Like a powerful lens, this visit reveals highly divergent temporalities: the future-oriented vision of the president, an extraordinarily rich potato harvest that happens to ripen perfectly in time for his visit and, on the other hand, crumbling infrastructure and the feeling that modernity has in fact already happened – in the past. Next, we have three contributions that look at infrastructure in relation to the larger temporalities of geology and climate. Mabel D. Gergan discusses the entangled temporalities of geological science and infrastructure construction in India, focusing in particular on "geological surprises" – that is, the ways in which the "young" Himalayan terrain interferes in state plans of dam construction. In the following essay, Mia M. Bennett walks us through the suspended reality of the polar day and ponders how things thought of as permanent, such as permafrost, have turned out to be much less than that in the Canadian Arctic. As people dig ever deeper into the thawing cryosphere, Mia wonders whether a return to mobility might not be a better option. In the last contribution to this collection, Richard D. G. Irvine encourages us to pay attention to the time-depth of the terrain beneath the A14, a major road in east England. Built on the route of a Roman road and skirting the subsiding Fens, recent construction also uncovered the 100,000-year-old remains of a woolly mammoth, thus revealing very different environmental pasts. Encounters with deep time along the A14 make us pause to consider the extensive temporalities that we are part of but tend not to perceive, being overwhelmed by the much "noisier" cycles of labour, capital turnover, extraction and politics.

References:

Adam, Barbara. 1998. *Timescapes of modernity: The environment and invisible hazards*. London and New York: Routledge.

Appel, Hannah. 2018. "Infrastructural Time." In *The Promise of Infrastructure*, edited by Nikhil Anand, Akhil Gupta and Hannah Appel, 41-61. Durham and London: Duke University Press.

Bear, Laura. 2016. "Time as Technique." A*nnual Review of Anthropology* 45 (1): 487-502. DOI: https://doi.org/10.1146/annurev-anthro-102313-030159.

Bowker, Geoffrey C. 2015. "The Infrastructure Toolbox: Temporality." *Cultural Anthropology Online*. Available at: https://culanth.org/fieldsights/725-the-infrastructure-toolbox.

Campbell, Jeremy M. 2012. "Between the Material and the Figural Road: The Incompleteness of Colonial Geographies in Amazonia." *Mobilities* 7 (4): 481-500. DOI: https://doi.org/10.1080/17450101.2012.718429.

Carse, Ashley. 2017. "An Infrastructural Event: Making Sense of Panama's Drought." *Water Alternatives* 10 (3): 888-909. Available at: http://www.water-alternatives.org/index.php/alldoc/articles/vol10/v10issue3/387-a10-3-13/file.

Chiu, Chui-Te, Tseng-Hsing Hsu, and Wan-Fa Yang. 2008. "Life cycle assessment on using recycled materials for rehabilitating asphalt pavements." *Resources, Conservation and Recycling* 52 (3): 545-56. DOI: https://doi.org/10.1016/j.resconrec.2007.07.001.

Clifford, James. 1992. "Travelling Cultures." In *Travelling Cultures*, edited by Lawrence Grossberg, Cary Nelson and Paula Treichler, 96-116. New York: Routledge.

Evans-Pritchard, E. E. 1939. "Nuer time-reckoning." *Africa: Journal of the International African Institute* 12 (2): 189-216. Available at: https://www.jstor.org/stable/1155085.

Fabian, Johannes. 1983. *Time and the Other: How anthropology makes its object*. New York: Columbia University Press.

Flower, John M. 2004. "A Road Is Made: Roads, Temples, and Historical Memory in Ya'an County, Sichuan." *The Journal of Asian Studies* 63 (3): 649-85. Avaliable at: https://www.jstor.org/stable/4133458.

Gell, Alfred. 1992. *The anthropology of time: cultural constructions of temporal maps and images*. Oxford: Berg.

Harvey, Penny, Casper Bruun Jensen, and Atsuro Morita. 2017. "Introduction: Infrastructural complications." In *Infrastructures and Social Complexity: A companion*, edited by Penny Harvey, Casper Bruun Jensen and Atsuro Morita, 1-22. London and New York: Routledge.

Hodges, Matt. 2008. "Rethinking time's arrow: Bergson, Deleuze and the anthropology of time." *Anthropological Theory* 8 (4): 399-429. DOI: https://doi.org/10.1177/1463499608096646.

Ingold, Tim. 1993. "The Temporality of the Landscape." *World Archaeology* 25 (2):152-174. Available at: https://www.sv.uio.no/sai/forskning.

Irvine, Richard D.G. 2014. "Deep time: an anthropological problem." *Social Anthropology* 22 (2): 157-72. DOI: https://doi.org/10.1111/1469-8676.12067.

Joniak-Lüthi, A. (forthcoming). "Maintaining whose road?" In *Repair, Breakages, Breakthroughs: Ethnographic Responses*, edited by Francisco Martínez and Patrick Laviolette. Berghahn.

Klaeger, Gabriel. 2012. "Rush and Relax: The Rhythms and Speeds of Touting Perishable Products on a Ghanaian Roadside." *Mobilities* 7 (4): 537-54. DOI: https://doi.org/10.1080/17450101.2012.718936.

Massey, Doreen. 2005. *For space*. Los Angeles: Sage.

Massey, Doreen. 1994. *Space, Place and Gender*. Minneapolis: University of Minnesota Press.

Munn, Nancy D. 1992. "The Cultural Anthropology of Time: A Critical Essay." *Annual Review of Anthropology* 21: 93-123. Available at: https://www.jstor.org/stable/2155982.

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